

Sea oats, Uniola paniculata, a valuable native  
sand-binding grass of coastal dunes

K. R. Langdon

Very few species of plants can survive on the ocean side of the first or foredune along our beaches. Sea oats, Uniola paniculata L. (Fig. 1), is one of the most important of these, forming a major part of the pioneer vegetation and helping to bind and stabilize the sand. Some other important plants in this habitat also helping stabilize the coastal dunes are beach bean or sea bean, Canavalia maritima (Aubl.) Thouars; beach morning glory, Ipomoea stolonifera (Cyrillo) Poiret; railroad vine, Ipomoea pes-caprae (L.) R. Brown; sea rocket, Cakile sp.; and beach elder, Iva imbricata Walter (1,2). Beyond the crest of the foredune other species of plants also become important. Vegetation along the coast is the best protection against both wave and wind erosion.



Fig. 1. Sea oats growing on foredune of a Florida  
Atlantic coast beach. (DPI #702482)

Uniola paniculata is a robust grass around 3 ft (1 m) tall with extensively creeping underground rhizomes or runners and a deep, wide-spreading root system. The tall seed heads have long been popular for dried arrangements. It grows in sometimes extensive colonies along the coasts of the southeastern United States, the West Indies and eastern Mexico. The distribution in the United States extends

from Virginia to Florida and Texas. The usual habitat for sea oats is in essentially barren sand and sand dunes exposed to wind, blowing sand, and salt spray in very drought-prone situations (1,2,3,4). It reproduces and spreads both by seed and by underground runners. Sea oats will tolerate considerable burial by drifting sand, sprouting readily through several inches of new sand. It is a very valuable plant to use in revegetating well drained, disturbed coastal sites. Sea oats stands are very sensitive to man-made disturbances and should be protected from both foot and vehicular traffic and other such disturbances.

Section 370.041, Florida Statutes, for beach erosion control, makes it illegal to harvest or remove sea oats from any public land or from private land without permission of the owner. This law provides, however, that licensed, certified nurserymen who grow sea oats from seed or vegetatively are permitted to sell the plants so grown. Several nurseries in the state can furnish planting material for use in coastal revegetation.

Several restoration projects utilizing sea oats have been completed or are in progress. Further use of these and other plants can accomplish much toward preserving our beaches.

#### LITERATURE CITED

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